

Benchmark: "X" on south bail of light post southwest of structure. Elevation = 724.633 (NAVD 88).

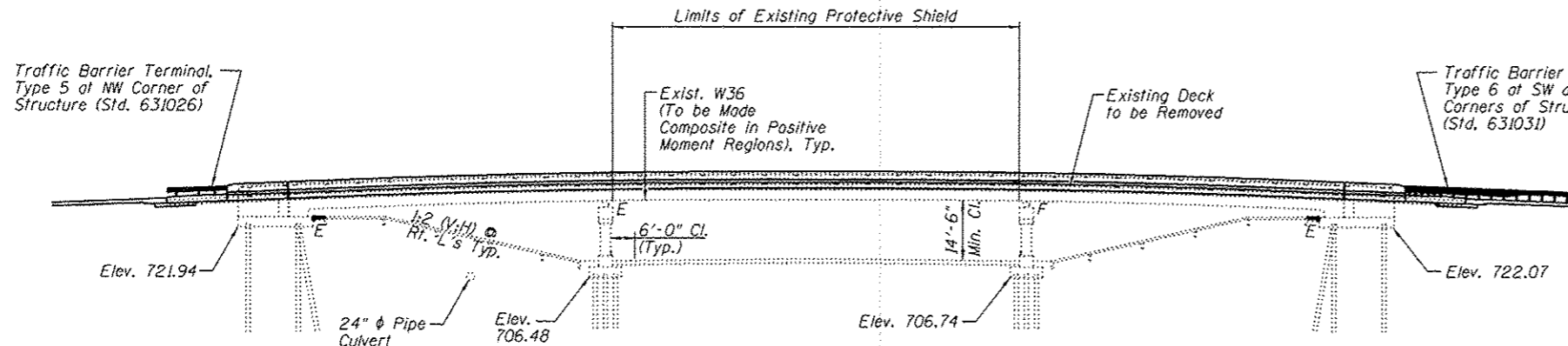
Existing Structure: S.N. 049-0087 was originally constructed in 1957 under the Construction Route FA 99 Section 125-HB at Station 12+76.37. The structure consists of a reinforced concrete deck on a three span continuous steel superstructure supported on stub abutments and multi column piers on pile foundations. In 2001, a 2 1/2" HMA overlay was installed and the existing open type joints at the abutments were modified under Section 126R-RS. The existing structure is 266'-0" back-to-back of abutments and 30'-0" out-to-out deck. The proposed structure is 266'-0" back-to-back abutments and 31'-2" out-to-out deck.

Traffic will be detoured during construction.

No Salvage.

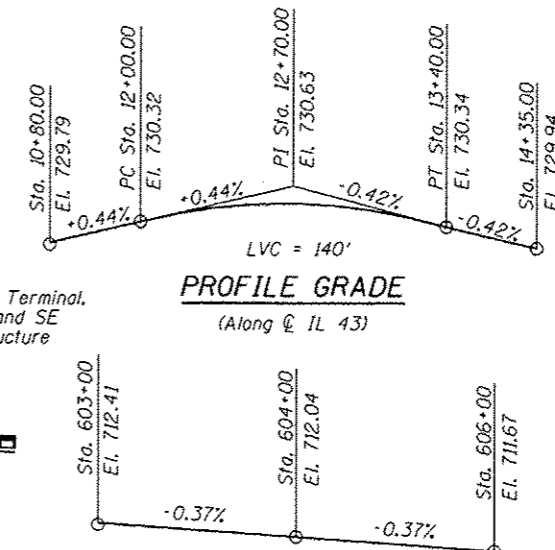
SCOPE OF WORK

1. Remove and replace existing concrete deck.
2. Make deck composite in positive moment regions.
3. Remove and replace bearings at abutments.
4. Clean and paint existing beams, diaphragms, and bearings.
5. Install new expansion joints at abutments.
6. Remove and replace approach slabs.
7. Perform substructure repairs.
8. Remove existing channel along abutments and install concrete slope wall.



ELEVATION

Note: Substructure elevations on all sheets have been converted from the NGVD 29 datum on the Existing Plans dated May 15, 1956 to the current NAVD 88 datum by subtracting 0.322 ft. All other elevations use the current NAVD 88 datum.

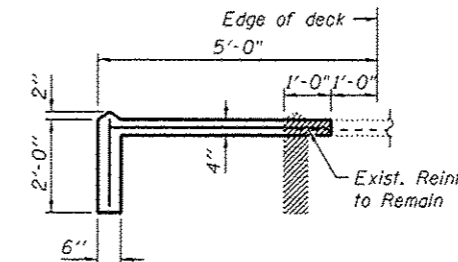


PROFILE GRADE

(Along & IL 43)

PROFILE GRADE

(Along & US 41)



SECTION A-A

STATION 12+76.37
REBUILT BY
STATE OF ILLINOIS
F.A.U. RT. 2706 SEC. 125HB-BR
LOADING HS-20
STR. NO. 049-0087

NAME PLATE

(See Std. 515001)

Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges (17th Edition)

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

DESIGN STRESSES

FIELD UNITS (Proposed)	FIELD UNITS (Existing)
$f'_c = 3,500$ psi	$f'_c = 3,000$ psi (Deck & Piers)
$f_y = 60,000$ psi (Reinf.)	$f'_c = 2,000$ psi (Abutments)
	$f_y = 33,000$ psi (Struct. Steel)
	$f_y = 40,000$ psi (Reinf.)

SEISMIC DATA

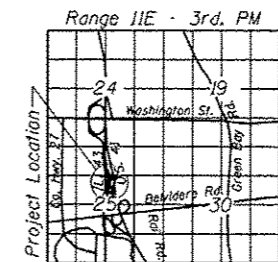
Seismic Performance Category (SPC) = A
Horizontal Bedrock Acceleration Coefficient (A) = 0.033g
Site Coefficient (S) = 1.0

GENERAL PLAN

IL. 43 (NB) OVER U.S. 41 (SB)
F.A.U. RTE. 2706 - SEC. 125HB-BR

LAKE COUNTY

STATION 12+76.37
STRUCTURE NO. 049-0087



LOCATION SKETCH

APPROVED
For Structural Adequacy Only
J. Carl Penney JES
Engineer of Bridges & Structures

STATE OF ILLINOIS
JASON M. SCHNEIDER
NO. 81-7245
EXPIRES 11-30-2014

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE NO. 049-0087

SHEET NO. 51 OF 524 SHEETS

COLLINS ENGINEERS
123 North Wacker Drive
Suite 300
Chicago, IL 60606
(312) 764-9500
www.collinseng.com

USER NAME	DESIGNED	REVISIONS
AMS	AMS	1
JMS	JMS	2
DR	DR	3
AMS	AMS	4

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125HB-BR	LAKE	51	18
CONTRACT NO. 60R61				
ILLINOIS FED. AID PROJECT				